

WHAT IS CLAIMED IS:

1. A bill of materials (BOM) sourcing system, comprising:  
one or more data storage locations operable to store BOM sourcing criteria;  
a sourcing engine operable to:

5                   receive a BOM including a plurality of part identifiers;  
                  identify one or more part identifiers included in the BOM;  
                  search supplier data associated with one or more suppliers of parts to  
obtain pricing information associated with the identified parts;  
                  receive the sourcing criteria from the one or more data storage  
10               locations; and  
                  determine which supplier should be used to supply each identified part  
based on the pricing information and the sourcing criteria; and  
                  a transaction execution module operable to:  
                  receive from the sourcing engine a part identifier for each identified  
15               part and the identity of the supplier to be used to supply each identified part;  
                  generate one or more transaction documents each identifying one or  
more parts and including a request that a supplier provide the one or more parts; and  
                  communicate the one or more transaction documents to the associated  
suppliers.

- 20               2. The system of Claim 1, wherein the sourcing engine is further operable  
to:

                  identify in the BOM a required quantity of each identified part;  
                  search the supplier data for availability information associated with the  
25               identified parts; and  
                  use the availability information and required quantity when determining which  
supplier should be used to supply each identified part.

3. The system of Claim 1, wherein one or more of the data storage locations are operable to store supplier data locally at the bill of materials sourcing system, the one or more storage locations coupled to a communication network and operable to receive updated supplier data using the network.

4. The system of Claim 1, wherein the supplier data is stored in one or more data storage locations external to the bill of materials sourcing system, the sourcing engine operable to access the supplier data using a communication network.

5. The system of Claim 1, wherein the sourcing criteria comprise information identifying approved suppliers of one or more parts, the suppliers used to supply each identified part being limited to the approved suppliers.

6. The system of Claim 1, wherein the sourcing criteria comprise contractual requirements with one or more suppliers that affect the sourcing of the BOM.

7. The system of Claim 1, wherein the sourcing criteria comprise a rule specifying that the BOM should be sourced at the lowest cost.

8. The system of Claim 1, wherein the sourcing criteria comprise a rule limiting the amount of parts obtained from a particular supplier.

9. The system of Claim 1, wherein the sourcing criteria comprise a rule specifying that the total number of suppliers used to supply the identified parts should be minimized.

10. The system of Claim 1, wherein the transaction documents further identify the pricing information obtained from the supplier data for each part.

11. The system of Claim 1, wherein the transaction execution module is operable to communicate the one or more transaction documents using a communication technique selected from the group consisting of electronic mail, fax, web-based communications, and electronic data interchange (EDI).

12. A method for sourcing a bill of materials (BOM), comprising:  
receiving a BOM at a sourcing engine, the BOM including a plurality of part  
identifiers;  
identifying, using the sourcing engine, one or more part identifiers included in  
the BOM;  
using the sourcing engine, searching supplier data associated with one or more  
suppliers of parts to obtain pricing information associated with the identified parts;  
receiving sourcing criteria at the sourcing engine;  
determining, using the sourcing engine, which supplier should be used to  
supply each identified part based on the pricing information and the sourcing criteria;  
automatically generating one or more transaction documents each identifying  
one or more parts and including a request that the determined supplier provide the one  
or more parts; and  
communicating the one or more transaction documents to the associated  
suppliers.

13. The method of Claim 12, further comprising:  
using the sourcing engine, identifying in the BOM a required quantity of each  
identified part;  
using the sourcing engine, searching the supplier data for availability  
information associated with the identified parts; and  
determining which supplier should be used to supply each identified part also  
based on the availability information and the required quantity associated with each  
identified part.

14. The method of Claim 12, wherein the supplier data is stored locally  
with the sourcing engine, the supplier data being updated by one or more suppliers  
using a communication network.

15. The method of Claim 12, wherein the supplier data is stored in one or  
more storage locations remote from the sourcing engine, the supplier data being  
accessed by the sourcing engine using a communication network.

16. The method of Claim 12, wherein the sourcing criteria comprise information identifying approved suppliers of one or more parts, the suppliers used to supply each identified part being limited to the approved suppliers.

17. The method of Claim 12, wherein the sourcing criteria comprise contractual requirements with one or more suppliers that affect the sourcing of the BOM.

18. The method of Claim 12, wherein the sourcing criteria comprise a rule specifying that the BOM should be sourced at the lowest cost.

19. The method of Claim 12, wherein the sourcing criteria comprise a rule limiting the amount of parts obtained from a particular supplier.

20. The method of Claim 12, wherein the sourcing criteria comprise a rule specifying that the total number of suppliers used to supply the identified parts should be minimized.

21. The method of Claim 12, wherein the transaction documents further identify the pricing information obtained from the supplier data for each part.

22. The method of Claim 12, wherein the one or more transaction documents are communicated using a communication technique selected from the group consisting of electronic mail, fax, web-based communications, and electronic data interchange (EDI).

23. Software for sourcing a bill of materials (BOM), the software embodied in a computer-readable medium and, when executed, operable to:

receive a BOM including a plurality of part identifiers;

identify one or more part identifiers included in the BOM;

5 search supplier data associated with one or more suppliers of parts to obtain pricing information associated with the identified parts;

receive sourcing criteria;

determine which supplier should be used to supply each identified part based on the pricing information and the sourcing criteria;

10 generate one or more transaction documents each identifying one or more parts and including a request that the determined supplier provide the one or more parts; and

communicate the one or more transaction documents to the associated suppliers.

15 24. The software of Claim 23, further operable to:

identify in the BOM a required quantity of each identified part;

search the supplier data for availability information associated with the identified parts; and

20 determine which supplier should be used to supply each identified part also based on the availability information and the required quantity associated with each identified part.

25 25. The software of Claim 23, wherein the sourcing criteria comprise information identifying approved suppliers of one or more parts, the suppliers used to supply each identified part being limited to the approved suppliers.

30 26. The software of Claim 23, wherein the sourcing criteria comprise contractual requirements with one or more suppliers that affect the sourcing of the BOM.

27. The software of Claim 23, wherein the sourcing criteria comprise a rule specifying that the BOM should be sourced at the lowest cost.

28. The software of Claim 23, wherein the sourcing criteria comprise a rule limiting the amount of parts obtained from a particular supplier.

29. The software of Claim 23, wherein the sourcing criteria comprise a rule specifying that the total number of suppliers used to supply the identified parts should be minimized.

30. The software of Claim 23, wherein the transaction documents further identify the pricing information obtained from the supplier data for each part.

31. The software of Claim 23, further operable to communicate the one or more transaction documents using a communication technique selected from the group consisting of electronic mail, fax, web-based communications, and electronic data interchange (EDI).

32. A bill of materials (BOM) sourcing system, comprising:  
means for receiving a BOM, the BOM including a plurality of part identifiers;  
means for identifying one or more part identifiers included in the BOM;  
means for searching supplier data associated with one or more suppliers of  
5 parts to obtain pricing information associated with the identified parts;  
means for receiving sourcing criteria;  
means for determining which supplier should be used to supply each identified  
part based on the pricing information and the sourcing criteria;  
means for generating one or more transaction documents each identifying one  
10 or more parts and including a request that the determined supplier provide the one or  
more parts; and  
means for communicating the one or more transaction documents to the  
associated suppliers.